

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002680**Date Inspected:** 20-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Japan Steel Works, Ltd.**Location:** Muroran, Japan**CWI Name:** C. Fu-Kuan**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower, Jacking and Deviation Saddles**Summary of Items Observed:**

On this date OSM Quality Assurance (QA) Representative Daniel L. Reyes observed the following activities relative to this project. The following was observed:

At approximately 08:30 hours, this QA inspector traveled to the Fabrication Shop # 4 without a Japan Steel Works, Ltd. (JSW) escort to observe the continued assembly fit-up operation of the structural steel plates for the West Deviation Saddle W2E1. Upon the arrival at the Fabrication Shop, this QA inspector observed the Quality Control (QC) Inspector Chung Fu-Kuan performing a visual inspection of the tack welds on the Rib Plates 6U, 6L and 7L. There were no discrepancies noted by Chung Fu-Kuan at the conclusion of the QC visual inspection.

Later in the shift this QA inspector observed the JSW assembly fit-up personnel Koanagi-Kiyotaka performing the fit-up task of the structural steel plate component identified as 1-17 with the following corresponding weld numbers; E1Y-17V, E1Y-17L-2 and E1Y-17I-1. At the conclusion of the alignment of 1-17 to the stem plate and base plate, Ohta-Yoshihiro ID 08-2017 performed the tack welding utilizing the Shielded Metal Arc Welding (SMAW) as per the Welding Procedure Specification (WPS) SJ-3011-11. The WPS was also used by the QC inspector Chung Fu-Kuan as a reference during QC verification. At the conclusion of the tack welding Chung Fu-Kuan performed a visual inspection and found a cracked tack weld at the weld identified as E1Y-17-V. This QA inspector concurs with the QC inspector's assessment and this QA inspector also observed Chung Fu-Kuan entering this data into the QC inspector's daily log and identifying the location on a weld map. The repair will be scheduled at a later date.

This QA inspector observed, at random intervals, the QC inspector performing QC verification of the welding parameters, the minimum preheat and maximum interpass temperatures. See Weld Joints in Progress Inspected on page two (2) of this report regarding QA verification of the welding parameters recorded during this shift on this

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date.

## QA Observation Summary

This QA inspector randomly observed the in process Shielded Metal Arc Welding (SMAW) for the tack welding of the Structural Steel components for the West Deviation Saddles identified as W2E1. The QA inspector noted that it appeared the approved and latest revised WPS's were posted at the appropriate welding station and that each approved welder was entered in the latest revised Welding Personnel Log issued by Japan Steel Works, Ltd. The welding parameters, preheat and interpass temperatures were verified by this QA inspector utilizing a Fluke 337 clamp meter for the electrical welding parameters and Tempilstik temperature indicators for the preheat temperatures. The filler metal utilized by the JSW welding personnel was also verified. The QC inspector, Chung Fu-Kuan appeared to perform the visual weld examinations, monitoring of the welding and the verification of the welding parameters as per the contract documents. The tack welding and inspection was not completed during this shift and appeared to be in general compliance with the contract documents.

The calibration dates of the measuring instruments utilized by the QC inspectors, the clamp amp/volt meter and the digital surface thermometer, were previously verified by this QA inspector.

The following digital photographs illustrate the observations of the activities performed on this date.



Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	W2E1, E1Y-17L-1	SJ-3011-11	C. Fu-Kuan	250 AC	25AC	144 mm/m	160 Degrees C.	Ohta-Yoshihiro
2	W2E1, E1Y-17V	SJ-3011-11	C. Fu-Kuan	150 AC	24 AC	69 mm/m	160 Degrees C.	Ohta-Yoshihiro

## Summary of Conversations:

There were no pertinent conversations relative to this project on this date.

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Reyes,Danny
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Lanz,Joe
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QA Reviewer
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